

Middle School Initiative**PART I
COVER SHEET****CAP 2 SEMESTER 2 WEEK 8**

COURSE: Lindbergh Aerospace Education, Achievement 5

LESSON TITLE: Rocket Principles

LENGTH OF LESSON: 50 Minutes

METHOD: Lecture - Performance

REFERENCE(S):

1. *Aerospace Dimensions*, Module 4, Chapter 2, 2000
2. Study Guide, 2000
3. Leader Guide, 2000
4. Resource Guide, 2000

AUDIO/VISUAL AIDS/HANDOUTS/ACTIVITY MATERIAL(S): As Needed

COGNITIVE OBJECTIVE: To learn what controls and systems in a rocket.

COGNITIVE SAMPLES OF BEHAVIOR: Upon completion of this chapter, the cadet should be able to:

1. Define acceleration.
2. Define inertia.
3. Define thrust.
4. Describe Newton's First Law of Motion.
5. Describe Newton's Second Law of Motion.
6. Describe Newton's Third Law of Motion.

AFFECTIVE OBJECTIVE: N/A

AFFECTIVE SAMPLES OF BEHAVIOR: N/A

Middle School Initiative**PART II
TEACHING PLAN****Introduction**

ATTENTION: Today, you will continue your Aerospace Education studies in *Aerospace Dimensions*, Module 4 with Chapter 2 - Rocket Principles.

MOTIVATION: What is Newton's Laws of Motion? How do these Laws of Motion affect a rocket? Today, we will learn the answers to these questions and more.

OVERVIEW: During this period, you will continue your aerospace studies with Rocket Principles.

Body

NOTE: The instructor should use the lesson plan in the Leader Guide, Pages 23-25. The cadets should use the Study Guide, Page 22. A materials list is located in the Resource Guide, Page 49-50.

Conclusion

SUMMARY: We have studied the material in *Aerospace Dimensions*, Module 4, Chapter 2.

REMOTIVATION: Now you understand how Newton's Laws of Motion affect a rocket.

CLOSURE: Next week, we study rocket systems and controls. **Any questions? See you next week!**

Middle School Initiative

**PART III
LESSON REVIEW**

LESSON OBJECTIVE(S): Today, we learned how to:

1. Define acceleration.
2. Define inertia.
3. Define thrust.
4. Describe Newton's First Law of Motion.
5. Describe Newton's Second Law of Motion.
6. Describe Newton's Third Law of Motion.

LESSON QUESTIONS: Contained in *Aerospace Dimensions*, Module 4, Chapter 2.